

What is claimed is:

1. An excimer laser device in which gas for excimer laser is sealed in a chamber and pulse oscillation is carried out in the chamber to excite the gas for excimer laser so to oscillate pulsed laser, wherein a predetermined amount of xenon gas having a predetermined concentration is supplied to the gas for excimer laser in the chamber to lower burst and spiking phenomena caused in an excimer laser output.

2. An excimer laser device according to claim 1, comprising:

a xenon gas cylinder in which the xenon gas to be supplied to the chamber is sealed;

sensing means for detecting a concentration of the xenon gas added to the gas for excimer laser in the chamber; and

control means for controlling an amount of the xenon gas supplied from the xenon gas cylinder to the chamber based on the concentration of the xenon gas detected by the sensing means.

3. Gas for excimer laser used for an excimer laser device which oscillates pulsed laser by exciting gas for excimer laser sealed in a chamber, wherein the gas for excimer laser contains at least a predetermined concentration of xenon gas.

4. Gas for excimer laser according to claim 3, wherein the gas for excimer laser contains 200 ppm or below of the xenon gas.

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